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**BY HAND DELIVERY**

Ms. Donna R. Searcy  
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Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

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JUN 12 1992

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: Late-Filed Comment Information of  
Motorola Satellite Communications, Inc.  
File No. PP-32 in ET Docket No. 92-28

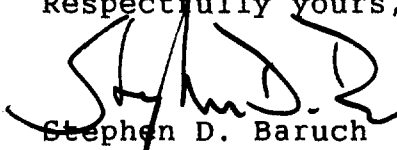
Dear Ms. Searcy:

On behalf of TRW Inc. ("TRW"), enclosed are the original and four copies of TRW's Reply Comments in connection with the above-referenced matter. Section I.C of TRW's Reply Comments contains or discloses "Confidential Information" that is the subject of a protective order in Ellipsat Corporation, DA 92-674 (Chief Engineer, released May 28, 1992) ("Protective Order"). Pursuant to the procedures specified in Paragraph 7 of the Protective Order, TRW hereby files the public copies of its Reply Comments without Section I.C.

As permitted by Paragraph 7(d) of the Protective Order, TRW is, under separate cover, filing the version of its Reply Comments that includes the section that contains or discloses Confidential Information with the Secretary. Pursuant to the Protective Order, the unredacted version of TRW's Reply Comments is also being served on Motorola Satellite Communications, Inc. and the other applicant-parties to ET Docket No. 92-28 (except for AMSC Subsidiary Corp., which has requested service of the redacted version only).

Should there be any questions concerning this matter, please contact the undersigned.

Respectfully yours,

  
Stephen D. Baruch

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BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

MOTOROLA SATELLITE  
COMMUNICATIONS, INC.

Supplement to Request for  
Pioneer's Preference to Establish  
a Low-Earth Orbit Satellite System  
in the 1610-1626.5 MHz Band

) ET Docket No. 92-28

) PP-32

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JUN 1 1992

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

To: The Chief Engineer

REPLY COMMENTS OF TRW INC. ON  
LATE-FILED COMMENT INFORMATION OF  
MOTOROLA SATELLITE COMMUNICATIONS, INC.

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REDACTED VERSION -- EXCLUDES CONFIDENTIAL INFORMATION  
PURSUANT TO PROTECTIVE ORDER, DA 92-674

## TABLE OF CONTENTS

	<u>Page</u>
SUMMARY . . . . .	iii
DISCUSSION . . . . .	3
I. The Late-Filed Comment Information Submitted By Motorola Is Merely Cumulative Of Its Pending Pioneer's Preference Request. . . . .	3
A. Although Motorola's Supplement Is Disruptive And Dilatory, Nothing Of Substance Is Added To Its Original Pioneer's Preference Request. . . . .	3
B. The "Chinese Papers" Fail To Support Motorola's Claims Of Innovativeness. . . . .	9
*C. The Confidential Information Covered By The <u>Protective Order</u> Fails To Enhance Motorola's Claim Of Entitlement To A Pioneer's Preference. . .	12
<p style="margin-left: 40px;">* This section references confidential information that is subject to a protective order, DA 92-674, released May 28, 1992. Copies of this pleading that contain this section are being filed in accordance with the procedures specified in Paragraph 7 of said protective order.</p>	
II. Motorola's Pioneer's Preference Request, As Supplemented, Remains Contrary To Commission Policy, Rules, And The Pioneer's Preference Requirements. . .	19
CONCLUSION . . . . .	22

## SUMMARY

In these Reply Comments, TRW Inc. ("TRW") responds to the late-filed comment information submitted by Motorola Satellite Communications, Inc. ("Motorola") in support of its request for pioneer's preference (File No. PP-32 in ET Docket No. 92-28). The Chief Engineer has requested reply comments on three sets of materials that were filed by Motorola after the April 8, 1992 deadline for the submission of comments on the pioneer's preference requests that were consolidated into ET Docket No. 92-28. The first set of documents is Motorola's April 10, 1992 Supplement to its pioneer's preference request (including a set of attachments). The second set of documents are collectively called the "Chinese Papers," and are described by Motorola as English-language translations of a Chinese patent application. The third set of materials consists of various documents and videotapes that are considered confidential information by Motorola, and that were made available to the parties pursuant to a Protective Order.

TRW demonstrates below that none of the late-filed comment information is relevant in any way to Motorola's claim that it is entitled to a pioneer's preference for its Iridium system proposal. The Supplement is largely a rehashing of Motorola's previously-claimed achievements -- all of which were thoroughly discredited in TRW's April 8, 1992 Opposition to the then-unsupplemented pioneer's preference request. The attachments to the Supplement add nothing; they are devoted entirely to press clippings and inapposite patent materials.

The Chinese Papers are nothing more than marketing materials. Indeed, to the extent that Motorola once requested confidential treatment for these materials -- which include synopses of Motorola's Iridium application and CCIR documents -- it appears to have abused the Commission's processes. The Chinese Papers offer no support for Motorola's claim that it satisfies the Commission's criteria for a pioneer's preference.

Finally, the confidential material disclosed pursuant to the Protective Order is completely irrelevant. The materials fail in every way to demonstrate that Motorola's Iridium system would advance the state of the communications art to a degree worthy of a pioneer's preference, and, in fact, point out several key weaknesses of the proposed Iridium system concept.

Through its disregard of the Commission's deadline for comments on the pioneer's preference requests in ET Docket No. 92-28, through its submission of a specious request for confidential treatment of inapposite materials, and through its dogged prosecution of both of these requests, Motorola has wasted the resources of the Commission and the parties and has delayed the inauguration of low-Earth orbit radiodetermination and mobile satellite services. Its actions are abusive of the Commission's processes.

Accordingly, Motorola's pioneer's preference request, as "supplemented," should be denied on its merits for the reasons stated in TRW's Opposition and in these Reply

Comments. The Commission, however, should also investigate the impact of Motorola's conduct in this matter on its basic qualifications to be a Commission licensee, and designate the appropriate issues.

BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, D.C. 20554

In the Matter of	)	ET Docket No. 92-28
	)	
MOTOROLA SATELLITE	)	PP-32
COMMUNICATIONS, INC.	)	
	)	
Supplement to Request for	)	
Pioneer's Preference to Establish	)	
a Low-Earth Orbit Satellite System	)	
in the 1610-1626.5 MHz Band	)	

To: The Chief Engineer

**REPLY COMMENTS OF TRW INC. ON  
LATE-FILED COMMENT INFORMATION OF  
MOTOROLA SATELLITE COMMUNICATIONS, INC.**

TRW Inc. ("TRW"), by its attorneys and pursuant to the Chief Engineer's May 29, 1992 Public Notice, "Low-Earth Orbit Satellite System Above 1 GHz Request for Pioneer's Preference, ET Docket No. 92-28, PP-32," hereby submits its reply comments on the late-filed comment information of Motorola Satellite Communications, Inc. ("Motorola") in the above-captioned proceeding. The late-filed information consists of Motorola's April 10, 1992 Supplement to Request for Pioneer's Preference ("Supplement"); information entitled "Papers for Chinese Publication" that was originally encompassed within a Motorola request for confidential treatment but was subsequently made available to the public ("Chinese Papers"); and certain documentary and videotape materials ("Confidential Information") that was made available to the parties to this

proceeding pursuant to a protective order in Ellipsat Corp., DA 92-674 (Chief Engineer, released May 28, 1992) ("Protective Order").

On April 8, 1992, TRW opposed Motorola's request for pioneer's preference in File No. PP-32. See TRW Opposition to Motorola's Pioneer's Preference Request, ET Docket No. 92-28 (filed April 8, 1992) ("Opposition"). It demonstrated there that approval of Motorola's request would contravene Commission policies and rules, and that, in any event, Motorola did not satisfy the Commission's criteria for the award of a pioneer's preference. TRW also showed that the grant of Motorola's request for pioneer's preference would deprive all of the other applicants with requests in ET Docket No. 92-28 of their rights to a "full" hearing under Section 309 of the Communications Act.

In these Reply Comments, TRW shows that nothing that has been presented in either Motorola's Supplement, the Chinese Papers, or the Confidential Information (to the extent that such information has been subject even to limited disclosure) affects TRW's demonstration in its Opposition that Motorola is not entitled to a pioneer's preference. Patent materials in particular, even if relevant, fail to demonstrate that Motorola's Iridium system would advance the state of the communications art to a degree worthy of a pioneer's preference.



Motorola, through its Supplement and confidentiality request, has forced the parties and the Commission to spend both time and resources to oppose and address materials that are completely irrelevant to the questions the Commission is to resolve in ET Docket No. 92-28. The Commission should investigate the extent to which Motorola's Supplement and related filings and actions are abusive of the Commission's processes, and designate a basic qualifications issue against Motorola's underlying application as appropriate. On the merits, however, for the reasons stated by TRW in its Opposition and below, the Commission should deny Motorola's pioneer's preference request.

#### **DISCUSSION**

**I. The Late-Filed Comment Information Submitted By Motorola Is Merely Cumulative Of Its Pending Pioneer's Preference Request.**

**A. Although Motorola's Supplement Is Disruptive And Dilatory, Nothing Of Substance Is Added To Its Original Pioneer's Preference Request.**

The first group of late-filed documents on which the Commission has requested reply comments is Motorola's April 10 Supplement and its accompanying bound volume of attachments. Neither the Supplement nor the materials presented in the attachments add anything of merit to Motorola's pioneer's preference request as it stood on the April 8, 1992

deadline.<sup>1/</sup> Instead, all the Supplement seems to have accomplished is to delay the conclusion of the pleading cycles on the pioneer's preference requests, and cause protracted litigation and negotiations on ex parte materials that Motorola attempted to have cloaked under a shield of confidentiality.

The bulk of Motorola's Supplement is devoted to a restatement of the genesis of what Motorola calls the "IRIDIUM™ system concept," and to a rehashing of Motorola's previous claims of the "innovativeness" of its design features. Motorola Supplement at 2-8. Motorola, however, advances no new claims of innovativeness for previously-unmentioned features or

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<sup>1/</sup> The cumulative nature of Motorola's Supplement, combined with the fact that Motorola filed the Supplement after the deadline for the submission of materials in support of the pioneer's preference requests (including Motorola's request in File No. PP-32), motivated TRW and others to move the Commission to strike the Supplement as inexcusably untimely and unduly disruptive. See, e.g., TRW Motion to Strike or, in the Alternative, to Place Motorola Supplement on Public Notice, filed April 23, 1992; Loral Qualcomm Satellite Services, Inc. Motion to Strike and Opposition to Supplement to Request for Pioneer's Preference, filed April 23, 1992. Although the Commission has now placed the Supplement on public notice, it has apparently rejected TRW's request that Motorola's post-April 8, 1992 filings be excluded from consideration in conjunction with Motorola's pioneer's preference request as it stood on the April 8 deadline. Thus, TRW wishes to emphasize that its submission of a response to the Chief Engineer's May 29 Public Notice in no way represents TRW's acquiescence in the Commission's tacit rejection of its Motion to Strike, and TRW hereby submits its reply comments without prejudice to its right to seek review of that interlocutory action in conjunction with a possible petition for review of the Commission's final decision in ET Docket No. 92-28.

aspects of the proposed Iridium system. It merely claims that its Supplement provides "updated information concerning the technical feasibility of the innovations encompassed in the IRIDIUM™ system." See id. at 2.<sup>2/</sup> Indeed, Motorola emphasizes its belief that the Iridium system application contained descriptions of the "innovations" relied upon by Motorola that were of "sufficient particularity" to enable the Commission to determine their technical feasibility. Id. at 3.

It thus is apparent that Motorola views its Supplement as providing corroborative support for claims it has already made, rather than as a filing that presents new substantive claims.<sup>3/</sup> In order to confirm this assessment, and thereby demonstrate that the Supplement adds nothing to Motorola's

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<sup>2/</sup> For example, Motorola asserts that it has "confirmed" the reliability of the proposed Iridium system by "a combination of propagation data and computer simulation . . . ." Motorola Supplement at 11. It supports this claim by referencing a videotape of the simulation and a copyrighted computer software program that allegedly demonstrates the Iridium system's intersatellite links. Id. at 12 n.19. In Section I.C, *infra*, TRW shows that neither the simulation nor the tape of the now-withdrawn computer program add anything of substance to -- much less "confirm" -- Motorola's assertion that it has demonstrated the technical feasibility of the proposed Iridium system.

<sup>3/</sup> Motorola's original pioneer's preference request was rather thin on detail. For a showing of technical feasibility, Motorola relied principally on a cross-reference to the Iridium application, and stated that it "anticipates filing additional requests for experimental authorizations in the coming months to support its research, development and testing efforts on the Iridium system." Motorola Request for Pioneer's Preference, at 2-3.

pending pioneer's preference request, one need look no further than the attachments to the Supplement.

Attachments A and F to the Supplement consist of nearly 200 pages of press clippings that mention the proposed Iridium system. While these clippings stand as evidence of the intensity of Motorola's public relations effort, they most certainly do not, contrary to Motorola's curious claims, verify "the innovative nature of Motorola's contribution[.]" See Supplement at 9.

Attachment B to the Supplement is a copy of a generic overview of the Iridium system concept that was purportedly presented to an Australian audience some two months before Ellipsat Corporation filed the first application for a low-Earth orbit system in the radiodetermination satellite service frequency bands. This item apparently relates to Motorola's belief that there is some significance in the fact that it was the first entity publicly to announce plans to file an application for such a system. See Motorola Comments in ET Docket No. 92-28, at 19, filed April 8, 1992. In its Consolidated Reply Comments in ET Docket No. 92-28, TRW demonstrated that "it is neither being the first to announce a proposal nor even the first to apply for a license that identifies an entity as worthy of a preference; rather it is being the first to formulate a realistic and workable plan to implement a credibly innovative idea that is truly

'pioneering.'" TRW Consolidated Reply Comments at 10 (emphasis in original; footnote omitted).

Attachment C to the Supplement appears to be a patent document that relates to technology that would be included in the proposed Iridium system, and involves a feature that Motorola has previously claimed pioneering credit for. See Motorola Request for Pioneer's Preference, at 3 (claiming innovativeness credit for multibeam antenna system that is subject of patent in Attachment C).<sup>4/</sup> In the case of the patent document in Attachment D, however, the patent is for a process that preserves power within hand-held communications devices, and thus appears not to be directly related to the

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<sup>4/</sup> Even so, the patent in Attachment C appears to be of no probative value. In the one decision where the Commission has addressed actual preference requests, it denied the request of a party that claimed a pioneer's preference for, inter alia, patented features of its system design that allegedly would allow the implementation of its proposed low-Earth orbit satellite technology. See Request for Pioneer's Preference in Proceeding to Allocate Spectrum for Fixed and Mobile Satellite Services for Low-Earth Orbit Satellites, 7 FCC Rcd 1625, 1626. The Commission found that the alleged technical advancements claimed by the party were "relatively routine design features that most new LEO satellite licensees would be expected to accomplish." Id. at 1627. So it is with the multi-beam, space-deployable antenna referenced in Attachment C to Motorola's Supplement. Many of the parties requesting preferences in ET Docket No. 92-28 have proposed multi-beam, antennas that would be deployed in orbit. See, e.g., TRW Odyssey Application at 36-38. Whatever advances Motorola may claim with regard to satellite performance, its developments are not within the class of innovations in new communications systems and services for which the Commission will award a pioneer's preference for a radio station license.

promotion of new and efficient uses of spectrum. See Supplement at 7-8, Attachment D.

Finally, Attachment E to the Supplement is the cover letter to Motorola's request for confidential treatment of yet additional attachments to its Supplement, and thus has no independent impact on the Supplement. TRW and others opposed Motorola's request for confidential treatment of what were, under the Commission's pioneer's preference procedures, impermissible ex parte submissions. See, e.g. TRW Opposition to Request for Confidential Treatment of Ex Parte Materials, filed April 23, 1992. The Commission eventually gave Motorola an opportunity to withdraw the materials or disclose them to the public. See Letter dated May 4, 1992, from David R. Sidall (Chief, Frequency Allocation Branch, Office of Engineering and Technology) to Norman P. Leventhal, counsel for TRW. Motorola took the opportunity to withdraw substantial portions of the materials it had previously submitted under the confidentiality request -- with the effect that the withdrawn materials will play no role in the resolution of the instant proceeding -- and the balance of the materials were subject to limited disclosure under the terms and conditions of the Protective Order. See

Letter dated May 11, 1992, from counsel for Motorola to David R. Sidall ("May 11 Letter").<sup>5/</sup>

In short, neither Motorola's Supplement, nor any of the attachments thereto, add anything to Motorola's request for pioneer's preference as it stood before the Supplement was filed. To the extent that the Commission appears intent on considering these materials in the course of this proceeding, TRW urges the Commission to regard them as cumulative of Motorola's pioneer's preference request as originally filed, and to accord them no independent weight on the question of whether Motorola is entitled to a pioneer's preference for the "innovativeness" of its Iridium system proposal.

**B. The "Chinese Papers" Fail To Support Motorola's Claims Of Innovativeness.**

In the May 11 Letter, Motorola agreed to make the Chinese Papers available for public inspection. These papers were described by Motorola as "[p]apers relating to Chinese patent application (English translations)." May 11 Letter at 2.

In actuality, the Chinese Papers appear to be little more than marketing materials intended for consumption in the Peoples' Republic of China. The several individual documents

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<sup>5/</sup> In this pleading, TRW limits its discussion of Confidential Information to Section I.C, infra. Thus, Section I.C is the only portion of this pleading that is subject to the terms and conditions enumerated in Paragraph 7 of the Protective Order.

that make up the Chinese Papers contain an overview of Motorola's corporate structure; a generic summary of the company's business plan for the Iridium system (of the variety and depth that has been seen in many of the Motorola press releases contained in Attachments A and F to the Supplement); a generic and relatively non-technical description of the proposed Iridium system;<sup>6/</sup> and a tailored presentation of the types of applications Motorola claims the proposed Iridium system could provide in China. The balance of the materials are claimed to be culled from Motorola's Iridium system application or CCIR documents, and a cursory piece on hand-off considerations.

It is clear that the Chinese Papers have absolutely no relevance to Motorola's pending pioneer's preference request, and it was disingenuous for Motorola to claim otherwise. Indeed, it was tantamount to an abuse of process for Motorola

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<sup>6/</sup> Curiously, in this description, Motorola reinflates a trial balloon that it had floated early in the application proceeding. It claims again that its present spectrum requirements -- i.e., the frequencies it has requested in its application -- are 10.5 MHz of the 1610-1626.5 MHz band. By the year 2001, however, Motorola states that it will require 40.8 MHz of spectrum. This requirement increases to 59.8 MHz by the year 2005, and to a whopping 96.3 MHz by the year 2010. See Chinese Papers, Iridium System Overview, at 6. If Motorola requires 40 megahertz of spectrum during the lifetimes of its first generation spacecraft (the Iridium system would, according to Motorola, become operational in 1997, and be comprised of satellites with 5 year design lifetimes), there is a substantial question as to whether Motorola could ever be authorized to operate in a mere 10.5 MHz of spectrum.



to assert that any of the discrete, article-like materials presented in the Chinese Papers were sufficiently confidential and/or proprietary to be eligible for shielding under a request for confidentiality. Clearly, synopses of application materials and CCIR documents are not eligible, and Motorola wasted Commission time and resources by filing and prosecuting such a request even to the extent it did.

Whatever the Chinese Papers may be -- and it does not appear that they relate "to [a] Chinese patent application" -- they do not advance Motorola's claim of entitlement to a pioneer's preference in any way. In making its pioneer's preference determination, the Commission should conclude that these materials add nothing of relevance.

C. The Confidential Information Covered By The  
Protective Order Fails To Enhance Motorola's Claim  
Of Entitlement To A Pioneer's Preference.





- 15 -

**CONFIDENTIAL INFORMATION EXCLUDED PURSUANT TO  
PROTECTIVE ORDER, DA 92-674**









**II. Motorola's Pioneer's Preference Request, As Supplemented, Remains Contrary To Commission Policy, Rules, And The Pioneer's Preference Requirements.**

In its Opposition to Motorola's then-unsupplemented pioneer's preference request, TRW asserted that the grant of a pioneer's preference to Motorola would be completely inappropriate under the rules and policies that form the basis for the Commission's pioneer's preference procedures. Because TRW has demonstrated, in the preceding sections of these Reply Comments, that none of the late-filed comment information submitted by Motorola has any bearing on the substantive merits of Motorola's pioneer's preference request in File No. PP-32 as it stood on the comment deadline of April 8, Motorola's now-supplemented request should be denied for the reasons stated in TRW's April 8 Opposition.

First, the pioneer's preference procedure is designed to provide an incentive to parties that develop new competitive services by ensuring that an otherwise qualified innovator will be licensed to operate in the service it has inspired. In this regard, the Commission has stated unequivocally that it does "not intend to award a pioneer a nationwide monopoly on a service and thereby preclude others from providing that service." Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488, 3490 (1991) ("Pioneer's Preference Order"), recon. in